

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 28-37 are pending in the present application. Claims 28 and 29 are amended and Claims 30-37 are added by the present amendment.

Applicant thanks Examiners Chu and Baumeister for the courtesy of an interview extended to Applicant's representative on January 16, 2004. During the interview differences between the claims and the applied art were discussed. Further, clarifying claim amendments and new claims, as presented herewith, were also discussed. No agreement was reached, pending the Examiners' detailed consideration of the claim amendments and new claims upon formal submission.

In the outstanding Office Action, Claims 28 and 29 were rejected under 35 U.S.C. § 102(b) as anticipated by Oshino et al. (Japanese Patent Application 63-107126, herein "Oshino"), which is respectfully traversed.

Claims 28 and 29 are amended to clearly define one side of an opening portion of an insulating film and the claim amendments find support for example in Figure 2A. No new matter is believed to be added.

Briefly recapitulating, independent Claim 28 is directed to a semiconductor memory device including a semiconductor element, a plurality of lead wires, at least a single dummy lead wire, an insulating film, and a resin molding. The plurality of lead wires are connected to a plurality of connecting electrodes formed on the semiconductor element, the at least a single dummy lead wire is not electrically connected to the semiconductor element, and the insulating film has an opening portion configured to accommodate the semiconductor element and to support the plurality of lead wires and the at least a single dummy lead wire. The opening portion has a plurality of sides that define a perimeter of the opening portion.

The resin molding is configured to cover (i) a connection portion between tip portions of the plurality of lead wires and the plurality of connecting electrodes and (ii) a tip portion of the at least a single dummy lead wire within the opening portion of the insulating film. The at least a single dummy lead wire is arranged in a space defined by two adjacent lead wires of the plurality of lead wires so that a length of that space is at least twice a minimum pitch between adjacent lead wires of the plurality of lead wires, and the two adjacent lead wires are provided on one side of the plurality of sides of the insulating film to define the space on the one side of the insulating film. Claim 29 is amended similar to Claim 28.

In a non-limiting example, Figure 2A shows the semiconductor element 11, the insulating film 12 having an opening portion, the plurality of lead wires 13, and the at least a single dummy lead wire 13'. Further, Figure 2A shows that the opening portion has four sides and two adjacent lead wires 13 are provided on one side of the four sides of the insulating film 12 to define the space in which the single dummy lead wire 13' is arranged.

Turning to the applied art, as discussed in the previously filed amendment, Oshino shows in Figures 1 and 2 a semiconductor memory device having a semiconductor element 3, an insulating film 6 having an opening portion, a plurality of lead wires 5, and at least a single dummy lead wire 5B. Further, Oshino shows in Figure 1 that the opening portion has a plurality of sides (four sides) that define a perimeter of the opening portion and no dummy wire is arranged in a space defined by two adjacent lead wires provided on one side of the plurality of sides, as required in Claim 28.

Thus, as discussed during the interview, Oshino does not teach or suggest at least a single dummy lead wire arranged in a space defined by two adjacent lead wires of a plurality of lead wires and the two adjacent lead wires are provided on one side of a plurality of sides of an insulating film to define the space on the one side of the insulating film.

Accordingly, it is respectfully submitted that Claims 28 and 29 patentably distinguish over Oshino.

New Claims 30-37 are added to set forth the invention in a varying scope and Applicant submits the new claims find support in the originally filed specification. More specifically, Claims 30 and 31 find support in the specification for example at page 16, lines 14-21, Claims 32 and 33 find support in Figure 3A, Claims 34 and 35 find support in Figure 2A, and Claims 36 and 37 find support in Figure 4A. In addition, Claims 30 and 31 recite a thickness of a semiconductor chip is “approximately 50 μm” and the term “approximately” is understood by one skilled in the art as accounting for normal tolerances associated with the formation of the semiconductor chip. No new matter is believed to be added. Because new Claims 30-37 depend on independent Claims 28 and 29, which are believed to be allowable as discussed above, it is respectfully submitted that new Claims 30-37 are also allowable.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)
EHK:RFF/bu